This biogas analyser is designed for use in the harsh industrial environment of combined heat and power (CHP) engine gas monitoring. The analyser may be installed outside or inside. It samples dry biogas, pressurized or low pressure gas and can be used for single or dual point sampling of:

- cogeneration heat and power engines (CHP)
- municipal or industrial waste water treatment sites
- small scale AD plants with dry fermentation
- landfill sites
**SWG 100 BIOcompact**  
**Biogas Analyser**

**Main features:**
- cost effective stationary biogas analyser  
- accurate measurements, incl. plug&play, pre-calibrated sensors  
- safety in use with gas flow restrictor orifice at gas inlet and ventilation  
- sampling from low suction up to high pressure gas  
- sample gas conditioning for fast and reliable measurements  
- no dilution of the sample gas, nor use of compressed air is required  
- discontinuous measurement, user settable up to 24 measurements per 24 hours  
- up to 2 sites monitoring (time sharing technique) with only 1 analyser  
- IP 54 cabinet for use in harsh environment  
- ready to run delivery, minimum installation work, low service downtime

**Technical specifications**

<table>
<thead>
<tr>
<th>Measured components</th>
<th>CH4</th>
<th>0 ... 100 %</th>
<th>(infrared NDIR)</th>
</tr>
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<tbody>
<tr>
<td>Measuring ranges</td>
<td>CO2</td>
<td>0 ... 100 %</td>
<td>(infrared NDIR)</td>
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<tr>
<td>Measuring principle</td>
<td>O2</td>
<td>0 ... 25 %</td>
<td>(electrochemical)</td>
</tr>
<tr>
<td></td>
<td>H2S</td>
<td>0 ... 2.000/5.000*ppm</td>
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- Measured components: CH4, CO2, O2, H2S, Calorific value 0 ... 50 MJ/m³; MJ/kg

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- Calculated component: Calorific value

| HMI Human machine interface | 3,5'' TFT color display with backlight  
|                            | Tactile keyboard and password protected operation  
|                            | RS 485 digital interface (Modbus RTU)  
|                            | Data storage and event logging on SD card |

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| System safety components | Stainless steel flow restrictor orifice  
|                         | Sample gas shut-down solenoid valve |

- System safety components: Stainless steel flow restrictor orifice, Sample gas shut-down solenoid valve

| Sample conditioning | Stainless steel gas fittings with 1/8'' ID threads  
|                    | Condensate trap with automatic condensate draining pump  
|                    | Teflon particulate filter, internal Viton hosing  
|                    | Sample inlet pressure: -100 ... +300 mbar  
|                    | Sample venting: atmosphere pressure |

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| Cabinet dimensions | 400x500x300 (WxHxD), wall or rack mounting  
|                   | appr. 14 kg / IP 54  
|                   | +5 ... 45 °C or -10 ... +45 °C with cabinet heater  
|                   | indoor or outdoor (rain and sun shade is mandatory and user scope of supply) |

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| Options | Flame arrestor  
|         | I/O-module with: 4x analog output 4...20 mA, floating, max. load 500R,  
|         | 2x alarm relays, potential free contacts 24 Vdc/5A, DIN rail RS 485, Profi bus converter,  
|         | cabinet heater 200 W  
|         | LEL (CH4) monitoring inside cabinet |

- Options: Flame arrestor, I/O-module with: 4x analog output 4...20 mA, floating, max. load 500R, 2x alarm relays, potential free contacts 24 Vdc/5A, DIN rail RS 485, Profi bus converter, cabinet heater 200 W, LEL (CH4) monitoring inside cabinet